Learning Technologies Project Bulletin

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In the Spotlight

NASA Qwhiz!
A New NASA JSC Learning Technologies Project

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NASA Qwhiz is a new Internet game created for K-12 students and teachers. Kids in schools around the nation can compete in live, head-to-head NASA Qwhiz tournaments in which they are tested on their knowledge of NASA missions and all the scientific, technological, historical, cultural, and cross-disciplinary knowledge inherent in them! Educators and educational technologists (LTP projects!) can put some fun into tests by making Qwhizzes with the easy-to-use Qwhiz Editor software.

Players earn points by answering questions in up to five categories. Questions within each category are assigned from 100 to 600 points. When a player clicks on a question square, a question pops up and the timer starts ticking. If the player answers correctly, he or she earns the points allotted to that question. If an incorrect answer is given, that number of points will be deducted from the player's score.

Questions are presented in multiple choice, true/false, or short-answer format, and may include pictures and sounds. A chat window is available to allow players and the game moderator to interact. The only equipment needed is a computer with an Internet connection and a Java-enabled Web browser.

If you're building your own Qwhizzes, you'll be interested in Qwhiz Miner and Qwhiz Editor. These tools are used to search NASA's and other Web sites to find content for Qwhizzes and allow that information to be extracted, edited, and saved in the Qwhiz formats. Either tool can be used independently, but when used together they help create Qwhizzes quickly and reduce the tedium of putting them together.

Qwhiz Miner features the ability to conduct a Web search on sites that are relevant to a Qwhiz topic. Results are scored and can be broken down by sections that match a query. Miner also provides keyword suggestions that can be used to improve search results.

With Qwhiz Editor, educators can create Qwhizzes that have up to five question categories of one to six questions each, define a purpose or description of the Qwhiz, map question categories to learning objectives or educational standards, and save study references for Qwhiz topics. A Qwhiz can also be tested before it is "published."

The Miner and Editor are displayed within a Web browser and can be used in a three-frame format, where searching, browsing, content selection, and question editing can all be performed in one window.

NASA Qwhiz is one of many tools developed by the LTP that K-12 teachers can use to integrate computers into lesson plans. Use NASA Qwhiz as one means of acquainting students with computers and software and enticing all students to learn about science, engineering, geography, and more by challenging them with NASA Qwhiz! Test drive the Beta version of NASA Qwhiz now at **http://prime.jsc.nasa.gov/Qwhiz!**

News Bytes

Check Your Link, Please!

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Please have someone from your project check the page at **http://learn.ivv.nasa.gov/education/topics/education.html** to ensure that the top-level link to your project is current and accurate and that you like the blurb about your project that is there. Please note either that the URL and text are correct or send the correct URL and/or corrections you would like made to the text to both Phyllis (pgriggs@rspac.ivv.nasa.gov) and me. Thank you.

Thanks for Your Support

Bonnie Bracey
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Thanks to the support of NASA and others, I made the list of the 50 most important women to know on the Net. The article is located at **http://olj.usc.edu/sections/features/98_stories/stories_whotoknow_women.htm** in the *Online Journalism Review's* "Who to Know."

Yeah, NASA, we did it!

This bulletin will also be available in Adobe Acrobat format on the Developers' Workshop Web site at: **http://developers.ivv.nasa.gov/collab/pubs/bulletin/**

Nothin' but Net

Pixel Shims

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You're probably sitting or standing there right now wondering what in the world a pixel shim is. Let's explain.

A shim is something that fills in gaps, helps make things fit correctly, or even makes something level. A pixel is the smallest element within any computer screen. If you put the two together, you get a pixel shim—a small, usually invisible graphic that is used in an HTML document to create a page format, like the balancing of table columns.

The next thing you probably want to know is what to do with a pixel shim. The first thing you must do is create a .gif image that is one pixel by one pixel. The image (pixel shim) can be any color. After you've created a pixel shim, save it with a simple name that will be easy to remember.

A pixel shim here can help add space to the left side of the text. It can give the extra spacing needed with a graphic or with other text.

THIS WOULD BE A PIXEL SHIM

You can use a pixel shim to add extra space in between rows.

THIS WOULD BE A CLEAR PIXEL SHIM

The extra space can help make the text easier to read.

Now that you have the pixel shim created and saved you're ready to go. Locate where you'd like to place the pixel shim and, using the img tag (img src=), place it. Include in the tag the height, width, spacing, and alignment elements that are required in order to create the proper balance and spacing. For example, to add white space so that the end of the text in one column matches the end of the text in another column, use a pixel shim called shimmy.gif. To do this, use the code <img src="shimmy.gif" vspace="65">, where 65 is the amount of vertical space you want around the image. By adding space around the image you can balance the two columns.

Pixel shims are great when extra space is needed. They can help to balance columns and spacing around images, align rows, and perform all sorts of little tasks. Learning to use the pixel shim can be a big help in solving little alignment problems. Now that you know what a pixel shim is and how it can be used, you're ready to head off into the world and shim away.

News Bytes (cont.)

Web Site Quality Control

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In the next several issues of the LTP Bulletin, we will discuss techniques used at RSPAC to maintain quality throughout the process of producing a Web article. Perhaps some of our readers will get some ideas about how they may maintain quality on their own Web sites. This process works for us. We hope portions of it will have some applicability to others. This article provides an overview of our process. Subsequent articles will discuss details and use examples.

The goal of RSPAC's Quality Control Procedure is to produce error-free Web articles (well, as close as we can get to error-free, being mere mortals and subject to all of Murphy's laws!) using a system of checks throughout the process. At RSPAC, we use a team approach, with one or more authors, graphic artists, Web programmers, systems specialists, and the site's curator on the team.

The inspiration for an article can come from anyone, including those outside the RSPAC staff. The idea is described in detail, using an outline or a draft, with concepts for graphics, interactive activities, and so forth sketched in. The idea is "pitched," usually by the proposed author, before a team consisting of programming, systems, and graphics leads, as well as the curator and program manager. All of these ask questions, make suggestions, and, if the pitch has been successful, set up the article team described above. The team then meets after the pitch meeting to develop strategies, assign individual tasks, and lay out the schedule for each step in the process, eventually leading to completion of the article. The article usually begins with the author completing the text while graphics and computer wizards on the team begin their tasks. A mock-up of the article is put together, edited by the author and a copyeditor, then sent to the curator, who does the tracking.

We use two types of tracking: an "Article Folder" and a "Project Folder." A new folder is created for each article.

The Article Folder is simply the manila file folder where the curator keeps the task checklists, a record of deliverables from the team, and other relevant data pertaining to the project article.

The Project Folder is an online folder (subdirectory) that contains the only copy of the actual product. This protected folder is on our development server and only those who, at certain stages of production, are given permission to edit or otherwise work on the article have access to this folder. As the article moves through the process, the permissions on the folder change to eliminate unauthorized edits.

As each step in the process is concluded, the curator checks the article to ensure ac-

Highlights & Happenings

MCET Update

Francesca Casella
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Internet accounts for teachers at core sites

With the end of the school year, the Internet accounts provided to the teachers through the NASA grant have been terminated. The teachers were offered the opportunity to renew their accounts with the same Internet service provider, TIAC, or to switch to the Mass EdNet, an educational network supported by the Massachusetts Department of Education. Mass EdNet is offering individual Internet accounts to all Massachusetts teachers, free of charge, until September 1998. After that, teachers will decide whether they want to renew their subscriptions or select a different Internet service provider. Many schools will be wired over the summer, and core site teachers are expected to have Internet access through the school network at the beginning of the academic year.

The Web site

Take Off! Web site statistics (generated using WebTrends software) for June 1998:

Total Number of Hits	48,465
Kilobytes Transferred	258,685
Unique IP Addresses	3,135

Of the total number of hits, 70% were internal to the US, 16% were international, and the rest were of unknown origin. A new, slightly modified version of the front page is now online. During the month of June revision of "Cool Links" was completed and content was developed for the "Teacher's Lounge" pages. A hyperlink button to the main site will be included in the Take Off! Web supplement.

The Take Off! video series

All the pre-production work for the second video was completed in June, and additional segments were recorded. The scripts of two additional units were also completed and permission was secured to re-use all copyrighted materials originally acquired for the broadcasts.

LDAPS Summer Report

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Two, two-week-long workshops were completed in the month of July by LEGO Data Acquisition and Prototyping System (LDAPS) members. The first was held at Tufts University for 15 teachers from St. Agnes school in Arlington, MA. The second was held in Pleasanton, CA, for 17 teachers from Vintage Hills Elementary School, two teachers from Idaho (associated with Idaho SPARK), and one teacher from Danville, CA, the site of one of last year's workshops.

The Pleasanton, CA, workshop was the first workshop in the world to use the RCX, the programmable LEGO brick, which is hitting the shelves and teacher catalogs this fall. The software for the RCX, called ROBOLAB, was developed by LDAPS members. The workshop ended with teachers creating an entire programmed autonomous LEGO ski resort using five RCXs. Although pictures don't capture how much fun it is to watch little LEGO figures riding a LEGO gondola and ski lift, the workshop can be found at **http://ldaps.ivv.nasa.gov/Workshop/**.

John Evans and Jeff Seaton from NASA Langley's education program office will be running a workshop based on the Vintage Hills workshop beginning on August 19. LDAPS member Ben Erwin will be traveling to Virginia to be a part of the action.

Chris Rogers, PI for LDAPS, and Ben Erwin will be making a major 45-minute presentation on "Education Day" at National Instruments (NI) Week (August 25-27) in Austin, TX. National Instruments is the company that makes LabVIEW, the graphical programming environment that runs ROBOLAB. NI is proud of its new alliance with Tufts and LEGO Dacta, and wishes to let everyone know about the exciting new opportunities for young students to be exposed to engineering. Ben's paper, "Middle School Engineering with LEGO and LabVIEW," which he will be presenting during the talk, made him a semifinalist in the education category at NI Week.

News
Bytes (cont.)

curacy and completeness, and confirms the status of the article. If all is proceeding normally, the curator then informs the system administrator that the project is entering the next phase. The system administrator or the curator then locks out the previous team members and passes permission to work on the document to the next members of the team who need access to it.

In addition to tracking an article throughout the process, the curator has been assisting in obtaining copyright permissions, if needed, assuring that the highest-quality designs, images, and writing are being used, and making corrections along the way. Upon preliminary completion of the article, the author and curator review the article, make adjustments, and send it to the copyeditor. Upon final approval by the curator, the article is posted to the Observatorium by one of our Web technicians.

Next month we will go into greater detail about maintaining quality in various stages of production.

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